Atty, Docket: 23052 (1789-12702) Patent

REMARKS/ARGUMENTS

Status of the Claims

Claims 1-5, 7-12, and 19-28 stand rejected.

Claims 3, 8, and 9 are currently amended.

Claims 29-35 are new.

Thus, claims 1-5, 7-12, and 19-35 are currently pending in this application.

The Applicants hereby request further examination and reconsideration of the presently claimed application.

Claim Rejections - 35 U.S.C. § 112

Claim 8 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter which Applicants regard as the invention. Claim 8 has been amended to overcome the § 112, second paragraph, rejection.

Claim Rejections - 35 USC § 103

Claims 1-5, 7-12, and 19-27 stand rejected under 35 USC § 103(a) as being unpatentable over Wong, et al., "Supramolecular Templating of Thermally Stable Crystalline Mesoporous Metal Oxides Using Nanoparticulate Precursors," Nano Letters, vol. 1, no. 11, pp. 637-642, 2001 (Wong) in view of Brinker, et al., "Evaporation-Induced Self-Assembly: Nanostructures Made Easy," Advanced Materials, vol. 11, no. 7, pp. 579-585, 1999 (Brinker) and U.S. Patent 5,019,293 (Burlitch). Claim 28 stands rejected under 35 USC § 103(a) as being unpatentable over Wong in view of Brinker, Burlitch, and U.S. Patent 3,907,921 (Winter). Claims 2-5, 7-12, and 19-28 depend from independent claim 1, thus claims 1-5, 7-12, and 19-28 stand or fall on the application of the combination of Wong, Brinker, and Burlitch to independent claim 1. As noted by the United States Supreme Court in Graham v. John Deere Co. of Kansas City. an obviousness determination

8

57745.01/1789.12702

begins with a finding that "the prior art as a whole in one form or another contains all" of the elements of the claimed invention. See Graham v. John Deere Co. of Kansas City, 383 U.S. 1, 22 (U.S. 1966). The Applicants respectfully submit that the combination of Wong, Brinker, and Burlitch fails to contain all of the elements of independent claim 1, and therefore does not make obvious claims 1-5, 7-12, and 19-28.

The combination of *Wong*, *Brinker*, and *Burlitch* fails to render obvious claims 1-5, 7-12, and 19-28 because the combination of *Wong*, *Brinker*, and *Burlitch* fails to disclose a clear solution comprising the first catalytic precursor, the pore-forming agent, and the nanoparticles. Claim 1 reads:

- 1. A process for making a porous catalyst, comprising
 - a) providing an aqueous solution containing a nanoparticle precursor;
 b) forming a composition containing nanoparticles:
- b) forming a composition containing nanoparticles;
 c) adding a first catalytic precursor and a pore-forming agent to the composition containing nanoparticles and allowing the first catalytic precursor.
- the pore-forming agent, and the nanoparticles to form a clear solution;
 d) air drying the clear solution at about room temperature so as to allow an organic-inorganic material gel structure to form; and
- e) removing the pore-forming agent from the organic-inorganic structure so as to yield a porous catalyst.

(Emphasis added). As shown above, claim 1 recites a clear solution comprising the first catalytic precursor, the pore-forming agent, and the nanoparticles. Wong discloses that his combination of surfactant and ammonium metatungstate is a clear solution. However, upon the addition of zirconium oxide to the clear solution, a white precipitate is formed. See Wong, p. 638. Upon formation of the white precipitate, the solution is no longer clear. The Examiner attempts to cure this deficiency by combining Brinker and Burlitch with Wong. However, Brinker and Burlitch never disclose the color or other physical properties of their solutions. Thus, the combination of Wong, Brinker, and Burlitch fails to disclose a clear solution comprising the first catalytic precursor, the pore-forming agent, and the nanoparticles. As such, the combination of

9

57745 01/1789 12702

Atty. Docket: 23052 (1789-12702) Patent

Wong, Brinker, and Burlitch fails to disclose a limitation of claim 1, and consequently fails to render obvious claims 1-5.7-12. and 19-28.

In addition, claims 1-5, 7-12, and 19-28 are not obvious in view of the combination of Wong, Brinker, and Burlitch because the Examiner's proposed combination of Wong, Brinker, and Burlitch would change the principle of operation of Wong's process. MPEP § 2143.01(VI) states, "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)." The Examiner asserts that it would be obvious to use Brinker's sol-gel self-assembly process in Wong's catalyst manufacturing process. See Office Action dated December 31, 2008, p. 4. However, Wong creates his catalyst particles via precipitation. See Wong, p. 638. If Wong's process was modified with Brinker's sol-gel process as suggested by the Examiner, no catalyst precipitation would occur. As such, the Examiner's proposed combination of Wong, Brinker, and Burlitch would change the principle of operation of Wong's process. Consequently, it is improper to combine Brinker and Burlitch with Wong, and therefore claims 1-5, 7-12, and 19-28 are not obvious in view of the combination of Wong, Brinker, and Burlitch.

New Claims

New claims 29-35 contain novel and non-obvious aspects of the invention. Support for new claims 29-35 can be found on pages 10 and 11 of the application. *Wong, Brinker*, and *Burlitch* have not been cited as teaching the aspects of the invention recited in claims 29-35, as such claims 29-35 are allowable over the combination of *Wong, Brinker*, and *Burlitch*.

57745,01/1789.12702

Finality of Next Office Action

The Applicant would like to point out that claim 1 has not been amended. The Applicant would also like to remind the Examiner of the rules regarding finality of office actions. Specifically, MPEP § 706.07(a) states that the next office action should not be final if the Examiner changes the grounds of rejection for claim 1. Should the Examiner insist on making the next office action final, the Applicant requests a telephone conference with the Examiner and the Supervisory Patent Examiner to clarify the finality issue, and thereby potentially avoid a petition under 37 C.F.R. § 1.181.

Atty. Docket: 23052 (1789-12702) Patent

CONCLUSION

Consideration of the foregoing and reconsideration of the application and withdrawal of the

rejections are respectfully requested by the Applicants. No new matter is introduced by way of the

amendment. It is believed that each ground of rejection raised in the Office Action dated

December 31, 2008 has been fully addressed. If any fee is due as a result of the filing of this paper,

please appropriately charge such fee to Deposit Account Number 50-1515 of Conley Rose, P.C.,

Texas. If a petition for extension of time is necessary in order for this paper to be deemed timely

filed, please consider this a petition therefore.

If a telephone conference would facilitate the resolution of any issue or expedite the

prosecution of the application, the Examiner is invited to contact the undersigned at the telephone

12

number given below.

Date: 3/3/69

5601 Granite Parkway, Suite 750 Plano, TX 75204 (972) 731-2288

(972) 731-2289 (Facsimile)

Respectfully submitted, CONLEY ROSE, P.C.

Grant Rodolph Reg. No. 50,487

ATTORNEY FOR APPLICANTS